

TENNESSEE VALLEY AUTHORITY

LARGE DIRECT SERVICE MANUFACTURING POWER RATES

(October 2018)

Availability

These rates shall apply to the firm electric power requirements of a customer that takes service directly from TVA and where (a) that customer's currently effective onpeak or offpeak contract demand, whichever is higher, is greater than 5,000 kW and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, or 541214.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, these rate schedules shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Seasonal Time-of-Use Direct Service Manufacturing Power Rate Schedule--TDDSMA shall apply to customers with an onpeak or offpeak contract demand, whichever is higher, greater than 1,000 kW but not more than 5,000 kW; Direct Service Manufacturing Power Rate Schedule--DSMB shall apply to customers with an onpeak or offpeak contract demand, whichever is higher, greater than 5,000 kW, but not more than 15,000 kW; Direct Service Manufacturing Power Rate Schedule--DSMC shall apply to customers with an onpeak or offpeak contract demand, whichever is higher, greater than 15,000 kW, but not more than 25,000 kW; and Direct Service Manufacturing Power Rate Schedule--DSMD shall apply to customers with an onpeak or offpeak contract demand, whichever is higher, greater than 25,000 kW.

Base Charges

Customer Charge: \$1,500 per delivery point per month
Administrative Charge: \$350 per delivery point per month

Demand Charges:

		Schedule TDDSMA (\$/kW)	Schedule DSMB (\$/kW)	Schedule DSMC (\$/kW)	Schedule DSMD (\$/kW)	
Summer Period	Onpeak Demand	10.00	10.00	10.00	10.00	per month of onpeak billing demand
	Maximum Demand	2.38	1.10	1.10	1.10	per month of maximum billing demand
	Excess Demand	10.00	10.00	10.00	10.00	per month of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.

This table is continued on the following page

Winter Period	Onpeak Demand	9.05	9.05	9.05	9.05	per month of onpeak billing demand
	Maximum Demand	2.38	1.10	1.10	1.10	per month of maximum billing demand
	Excess Demand	9.05	9.05	9.05	9.05	per month of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.
Transition Period	Onpeak Demand	9.05	9.05	9.05	9.05	per month of onpeak billing demand
	Maximum Demand	2.38	1.10	1.10	1.10	per month of maximum billing demand
	Excess Demand	9.05	9.05	9.05	9.05	per month of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.

Energy Charges:

		Schedule TDDSMA (¢/kWh)	Schedule DSMB (¢/kWh)	Schedule DSMC (¢/kWh)	Schedule DSMD (¢/kWh)	
Summer Period	Onpeak hours	5.314	5.535	5.426	5.204	per month for all metered onpeak kWh
	Offpeak hours Block 1	2.873	3.094	2.984	2.762	per month for the first 200 hours use of metered onpeak demand multiplied by the ratio of offpeak energy to total energy
	Offpeak hours Block 2	0.194	0.194	0.332	0.167	per month for the next 200 hours use of metered onpeak demand multiplied by the ratio of offpeak energy to total energy
	Offpeak Hours Block 3	-0.055	-0.055	0.332	0.109	per month for the hours use of metered onpeak demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy
	Minimum offpeak energy	2.873	3.094	2.984	2.762	per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Winter Period	Onpeak hours	4.199	4.422	4.312	4.089	per month for all metered onpeak kWh
	Offpeak hours Block 1	3.090	3.312	3.201	2.979	per month for the first 200 hours use of metered onpeak demand multiplied by the ratio of offpeak energy to total energy
	Offpeak hours Block 2	0.194	0.194	0.332	0.167	per month for the next 200 hours use of metered onpeak demand multiplied by the ratio of offpeak energy to total energy
	Offpeak Hours Block 3	-0.055	-0.055	0.332	0.109	per month for the hours use of metered onpeak demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy
	minimum offpeak energy	3.090	3.312	3.201	2.979	per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.
Transition Period	Onpeak hours	3.177	3.397	3.286	3.064	per month for all metered onpeak kWh
	Offpeak hours Block 1	3.177	3.397	3.287	3.064	per month for the first 200 hours use of metered onpeak demand multiplied by the ratio of offpeak energy to total energy
	Offpeak hours Block 2	0.194	0.194	0.332	0.167	per month for the next 200 hours use of metered onpeak demand multiplied by the ratio of offpeak energy to total energy
	Offpeak Hours Block 3	-0.055	-0.055	0.332	0.109	per month for the hours use of metered onpeak demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy
	minimum offpeak energy	3.177	3.397	3.287	3.064	per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Adjustment

The base demand and energy charges shall be increased or decreased in accordance with the current Adjustment Addendum published by TVA. A resource cost allocation (RCA) methodology based on historical sales and fuel cost data will be applied to allocate amounts calculated under any Fuel Cost Adjustment (FCA) in the Adjustment Addendum in the manner described below.

The RCA methodology allocates a different percentage of total eligible fuel costs to (a) all distributor-served and directly served customers with contract demands greater than 5,000 kW served under manufacturing-designated rate schedules (LMS Customers), (b) all distributor-served and directly served customers with contract demands greater than 5,000 kW not served under manufacturing-designated rate schedules (LGS Customers), and (c) all other customers (All Other Customers).

The RCA methodology allocates total fuel costs in proportion to the average hourly load of LMS Customers, LGS Customers, and All Other Customers, weighted by the dispatch cost of TVA's Top 100 MW of incremental cost, in each hour, using the following formula:

$$RCA_j = \left(\frac{\sum_i h_{ij} C_i}{\sum_i \sum_j h_{ij} C_i} \right) \times FA$$

where RCA_j is the RCA allocation for customer group: LMS Customers, LGS Customers, or All Other Customers

h_{ij} is the hourly energy of each customer group

C_i is the Top Cost (dispatch cost for the top 100 MW)

i is the hourly interval of the billing month,

j is the customer group : LMS Customers, LGS Customers, or All Other Customers

FA is the actual monthly fuel and purchased power expenses as used in any FCA as reflected in the Adjustment Addendum

Any FCA included in the Adjustment Addendum shall provide for TVA's estimated monthly fuel costs (estimated actual total fuel and purchased power expenses/estimated actual energy sales) to be adjusted based on the application of Seasonal Amounts set out below. To determine the Seasonal Amounts, using the above formula, TVA calculated an RCA allocation percentage for the Seasonal Periods set out in these rate schedules based on data from August 2011 through July 2017 (excluding the month of January 2014). The resulting percentage was applied to actual monthly fuel costs during each of the Seasonal Periods and divided by actual energy sales to obtain the following amounts:

Seasonal Period	LMS Customers	LGS Customers	All Other Customers
Summer	-0.096 ¢ per kWh	-0.062 ¢ per kWh	0.027 ¢ per kWh
Winter	-0.046 ¢ per kWh	-0.038 ¢ per kWh	0.014 ¢ per kWh
Transition	-0.044 ¢ per kWh	-0.022 ¢ per kWh	0.015 ¢ per kWh

TVA may recalculate the Seasonal Amounts annually based on changes in sales and underlying fuel and purchased power costs within the latest 12-month period ending June 30 or to reflect projected changes in sales and fuel and purchased power costs in the next 12-month period ending June 30, or both. If the recalculated Seasonal Amounts increase or decrease by more than 10%, TVA will change the Seasonal Amounts by providing not less than 60 days' notice to customer. The changed Seasonal Amounts shall be included in any FCA that is included as part of the next effective Adjustment Addendum.

Any FCA included in the Adjustment Addendum shall provide for the RCA formula to be used to reconcile the estimated fuel costs applied to LMS Customers, LGS Customers, or All Other Customers to actual fuel costs and sales.

Loss adjustments are made to the monthly FCA adjustment under the Adjustment Addendum to recognize additional distribution cost of providing service to the retail customers. The loss factors applied to customers that own the transformation facilities and take service at the bulk transmission of 161 kV or higher shall be set to 0%.

In addition, base demand and energy charges shall be increased or decreased to (a) correspond to increases or decreases determined by TVA in the value of the hydro-generation benefit allocated to residential consumers or (b) ensure that (i) TVA does not pay out more in hydro-allocation credits for sales to residential consumers than it receives in hydro-allocation debits for sales to other consumers or (ii) TVA does not receive more in such debits for sales to other consumers than it pays out in such credits for sales to residential consumers. Facilities rental charges and reactive demand charges may also be increased or decreased by TVA, effective with the effective date of any such Adjustment Addendum, to reflect changes in the cost of providing for delivery at voltage levels below 161 kV and of providing reactive power, respectively.

Facilities Rental Charge

There shall be no facilities rental charge under these rate schedules for delivery at bulk transmission voltage levels of 161 kV or higher. For delivery at less than 161 kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 36¢ per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 93¢ per kW per month for the first 10,000 kW and 73¢ per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period and (2) the customer's currently effective onpeak or offpeak contract demand, whichever is higher, and shall be in addition to all other charges under these rate schedules, including minimum bill charges.

Reactive Demand Charges

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of \$1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of \$1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under these rate schedules, including minimum bill charges.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, Onpeak hours for each day shall for purposes of these rate schedules be from 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. For all other hours of each day and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by TVA. In the event TVA determines that such changed onpeak and offpeak hours are appropriate, it shall so notify customer at least 12 months prior to the effective date of such changed hours.

Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under these rate schedules as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

TVA shall meter the onpeak and offpeak demands in kW of all customers taking service under these rate schedules. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under these rate schedules as onpeak and offpeak hours and, in each case, shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour.

Except as provided below, (1) the onpeak billing demand shall be the highest onpeak metered demand in the month, (2) the offpeak billing demand shall be the highest offpeak metered demand in the month, and (3) the maximum billing demand shall be the higher of the onpeak billing demand or offpeak billing demand in the month.

The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, (3) 50 percent of the next 25,000 kW, (4) 60 percent of the next 50,000 kW, (5) 70 percent of the next 100,000 kW, (6) 80 percent of the next 150,000 kW, and (7) 85 percent of all kW in excess of 350,000 kW of the higher of the currently effective onpeak contract demand and the highest onpeak billing demand established during the preceding 12 months.

The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, (3) 50 percent of the next 25,000 kW, (4) 60 percent of the next 50,000 kW, (5) 70 percent of the next 100,000 kW, (6) 80 percent of the next 150,000 kW, and (7) 85 percent of all kW in excess of 350,000 kW of the higher of the currently effective offpeak contract demand and the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under these rate schedules, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted, applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of these rate schedules entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, amounts calculated under any fuel cost adjustment that is included in the Adjustment Addendum shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

Single-Point Delivery

The charges under these rate schedules are based upon the supply of service through a single delivery and metering point, and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery and metering point and at each different voltage shall be separately metered and billed.

TENNESSEE VALLEY AUTHORITY
ADJUSTMENT ADDENDUM
TO
DIRECT SERVICE POWER RATES SCHEDULES
Effective October 1, 2018

The following table lists the adjustments applicable to the designated rate schedules. All adjustments shall be applicable to bills rendered from meter readings taken for TVA monthly billing cycles scheduled to begin on or after the effective date of this Adjustment Addendum. Column (1) indicates the Hydro Allocation Adjustment; Column (2) indicates the TVA revenue requirement adjustment; Column (3) indicates the fuel cost adjustment.

STANDARD SERVICE	(1)	(2)	(3)
<u>Residential Service</u>			
<u>Schedule DRS</u>			
Energy Charge			
Summer			
First 500 kWh	Add -0.297¢	+	0.164¢ + (1.06664 x A _m)
Next 500 kWh	Add -0.297¢	+	0.164¢ + (1.06664 x A _m)
Additional kWh	Add -0.297¢	+	0.148¢ + (1.06664 x A _m)
Winter			
First 500 kWh	Add -0.297¢	+	0.163¢ + (1.06664 x A _m)
Next 500 kWh	Add -0.297¢	+	0.163¢ + (1.06664 x A _m)
Additional kWh	Add -0.297¢	+	0.146¢ + (1.06664 x A _m)
Transition			
First 500 kWh	Add -0.297¢	+	0.160¢ + (1.06664 x A _m)
Next 500 kWh	Add -0.297¢	+	0.160¢ + (1.06664 x A _m)
Additional kWh	Add -0.297¢	+	0.143¢ + (1.06664 x A _m)
Customer Charge	Add -\$1.60	+	\$0.00

General Power Service
Schedule DSA

Part 1

Energy Charge

 Summer

First 500 kWh	Add 0.323¢	+	0.176¢ + (1.05138 x A _m)
Next 600 kWh	Add 0.323¢	+	0.176¢ + (1.05138 x A _m)
Additional kWh	Add 0.323¢	+	0.159¢ + (1.05138 x A _m)

 Winter

First 500 kWh	Add 0.323¢	+	0.174¢ + (1.05138 x A _m)
Next 600 kWh	Add 0.323¢	+	0.174¢ + (1.05138 x A _m)
Additional kWh	Add 0.323¢	+	0.157¢ + (1.05138 x A _m)

 Transition

First 500 kWh	Add 0.323¢	+	0.172¢ + (1.05138 x A _m)
Next 600 kWh	Add 0.323¢	+	0.172¢ + (1.05138 x A _m)
Additional kWh	Add 0.323¢	+	0.155¢ + (1.05138 x A _m)

Part 2

Demand Charge

 Summer

First 50 kW	Add \$0.00	+	\$0.02
Excess over 50 kW	Add \$0.00	+	\$0.27

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

Winter					
First 50 kW	Add	\$0.00	+	\$0.02	
Excess over 50 kW	Add	\$0.00	+	\$0.25	
Transition					
First 50 kW	Add	\$0.00	+	\$0.02	
Excess over 50 kW	Add	\$0.00	+	\$0.25	
Energy Charge					
Summer					
First 15,000 kWh	Add	0.323¢	+	0.158¢	+ (1.05138 x A _m)
Additional kWh	Add	0.323¢	+	0.084¢	+ (1.03396 x A _m)
Winter					
First 15,000 kWh	Add	0.323¢	+	0.156¢	+ (1.05138 x A _m)
Additional kWh	Add	0.323¢	+	0.083¢	+ (1.03396 x A _m)
Transition					
First 15,000 kWh	Add	0.323¢	+	0.154¢	+ (1.05138 x A _m)
Additional kWh	Add	0.323¢	+	0.082¢	+ (1.03396 x A _m)

Part 3

Demand Charge					
Summer					
First 1,000 kW	Add	\$0.00	+	\$0.27	
Excess over 1,000 kW *	Add	\$0.00	+	\$0.28	
Winter					
First 1,000 kW	Add	\$0.00	+	\$0.25	
Excess over 1,000 kW *	Add	\$0.00	+	\$0.25	
Transition					
First 1,000 kW	Add	\$0.00	+	\$0.25	
Excess over 1,000 kW *	Add	\$0.00	+	\$0.25	
Energy Charge					
Summer					
First 100 hours	Add	0.323¢	+	0.102¢	+ (1.03396 x A _m)
Next 250 hours	Add	0.323¢	+	0.090¢	+ (1.03396 x A _m)
Additional kWh	Add	0.323¢	+	0.069¢	+ (1.03396 x A _m)
Winter					
First 100 hours	Add	0.323¢	+	0.101¢	+ (1.03396 x A _m)
Next 250 hours	Add	0.323¢	+	0.089¢	+ (1.03396 x A _m)
Additional kWh	Add	0.323¢	+	0.069¢	+ (1.03396 x A _m)
Transition					
First 100 hours	Add	0.323¢	+	0.100¢	+ (1.03396 x A _m)
Next 250 hours	Add	0.323¢	+	0.088¢	+ (1.03396 x A _m)
Additional kWh	Add	0.323¢	+	0.069¢	+ (1.03396 x A _m)

Schedule DSMA

Demand Charge					
Summer					
Coincident kW *	Add	\$0.00	+	\$0.27	
Maximum kW	Add	\$0.00	+	\$0.00	
Winter					
Coincident kW *	Add	\$0.00	+	\$0.25	
Maximum kW	Add	\$0.00	+	\$0.00	
Transition					
Coincident kW *	Add	\$0.00	+	\$0.25	
Maximum kW	Add	\$0.00	+	\$0.00	
Energy Charge					
First 400 hours	Add	0.000¢	+	0.014¢	+ (0.00000 x A _m)
Summer	Add	0.323¢	+	0.103¢	+ (1.03396 x A _m)
Winter	Add	0.323¢	+	0.095¢	+ (1.03396 x A _m)
Transition	Add	0.323¢	+	0.091¢	+ (1.03396 x A _m)

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

Schedule TDDSA

Demand Charge

Summer Period

Onpeak * Add \$0.00 + \$0.26

Maximum Add \$0.52 + \$0.08

Winter Period

Onpeak * Add \$0.00 + \$0.24

Maximum Add \$0.52 + \$0.08

Transition Period

Onpeak * Add \$0.00 + \$0.24

Maximum Add \$0.52 + \$0.08

Energy Charge

Summer Period

Onpeak Add 0.111¢ + 0.185¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.107¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.008¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.001¢ + (1.03000 x A_m)

Winter Period

Onpeak Add 0.111¢ + 0.150¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.114¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.008¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.001¢ + (1.03000 x A_m)

Transition Period

Onpeak Add 0.111¢ + 0.117¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.117¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.008¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.001¢ + (1.03000 x A_m)

Schedule DSB

Demand Charge

Summer Period

Onpeak * Add \$0.00 + \$0.26

Maximum Add \$0.52 + \$0.08

Winter Period

Onpeak * Add \$0.00 + \$0.23

Maximum Add \$0.52 + \$0.08

Transition Period

Onpeak * Add \$0.00 + \$0.23

Maximum Add \$0.52 + \$0.08

Energy Charge

Summer Period

Onpeak Add 0.111¢ + 0.149¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.092¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.010¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.003¢ + (1.03000 x A_m)

Winter Period

Onpeak Add 0.111¢ + 0.124¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.097¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.010¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.003¢ + (1.03000 x A_m)

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

Transition Period					
Onpeak	Add	0.111¢	+	0.091¢	+ (1.03000 x A _m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.091¢	+ (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.010¢	+ (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	0.003¢	+ (1.03000 x A _m)

Schedule DSC

Demand Charge

Summer Period

Onpeak * Add \$0.00 + \$0.26

Maximum Add \$0.52 + \$0.08

Winter Period

Onpeak * Add \$0.00 + \$0.23

Maximum Add \$0.52 + \$0.08

Transition Period

Onpeak * Add \$0.00 + \$0.23

Maximum Add \$0.52 + \$0.08

Energy Charge

Summer Period

Onpeak Add 0.111¢ + 0.149¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.092¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.010¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.003¢ + (1.03000 x A_m)

Winter Period

Onpeak Add 0.111¢ + 0.124¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.097¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.010¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.003¢ + (1.03000 x A_m)

Transition Period

Onpeak Add 0.111¢ + 0.091¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.091¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.010¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.003¢ + (1.03000 x A_m)

Schedule DSD

Demand Charge

Summer Period

Onpeak * Add \$0.00 + \$0.26

Maximum Add \$0.52 + \$0.08

Winter Period

Onpeak * Add \$0.00 + \$0.23

Maximum Add \$0.52 + \$0.08

Transition Period

Onpeak * Add \$0.00 + \$0.23

Maximum Add \$0.52 + \$0.08

Energy Charge

Summer Period

Onpeak Add 0.111¢ + 0.149¢ + (1.03000 x A_m)

Offpeak

First 200 hours *** Add 0.111¢ + 0.092¢ + (1.03000 x A_m)

Next 200 hours Add 0.111¢ + 0.008¢ + (1.03000 x A_m)

Additional kWh Add 0.111¢ + 0.003¢ + (1.03000 x A_m)

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

Winter Period					
Onpeak	Add	0.111¢	+	0.124¢	+ (1.03000 x A _m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.097¢	+ (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.008¢	+ (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	0.003¢	+ (1.03000 x A _m)
Transition Period					
Onpeak	Add	0.111¢	+	0.091¢	+ (1.03000 x A _m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.091¢	+ (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.008¢	+ (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	0.003¢	+ (1.03000 x A _m)

Manufacturing Service

Schedule TDDSM

Demand Charge

Summer Period

Onpeak *	Add	\$0.00	+	\$0.24
Maximum	Add	\$0.52	+	\$0.05

Winter Period

Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.05

Transition Period

Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.05

Energy Charge

Summer Period

Onpeak	Add	0.111¢	+	0.128¢	+ (1.03000 x A _m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.069¢	+ (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.005¢	+ (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	-0.001¢	+ (1.03000 x A _m)

Winter Period

Onpeak	Add	0.111¢	+	0.101¢	+ (1.03000 x A _m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.074¢	+ (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.005¢	+ (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	-0.001¢	+ (1.03000 x A _m)

Transition Period

Onpeak	Add	0.111¢	+	0.076¢	+ (1.03000 x A _m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.076¢	+ (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.005¢	+ (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	-0.001¢	+ (1.03000 x A _m)

Schedule DSMB

Demand Charge

Summer Period

Onpeak *	Add	\$0.00	+	\$0.24
Maximum	Add	\$0.52	+	\$0.02

Winter Period

Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.02

Transition Period

Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.02

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

Energy Charge				
Summer Period				
Onpeak	Add	0.111¢	+	0.133¢ + (1.03000 x A _m)
Offpeak				
First 200 hours ***	Add	0.111¢	+	0.074¢ + (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.005¢ + (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	-0.001¢ + (1.03000 x A _m)
Winter Period				
Onpeak	Add	0.111¢	+	0.106¢ + (1.03000 x A _m)
Offpeak				
First 200 hours ***	Add	0.111¢	+	0.079¢ + (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.005¢ + (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	-0.001¢ + (1.03000 x A _m)
Transition Period				
Onpeak	Add	0.111¢	+	0.081¢ + (1.03000 x A _m)
Offpeak				
First 200 hours ***	Add	0.111¢	+	0.081¢ + (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.005¢ + (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	-0.001¢ + (1.03000 x A _m)

Schedule DSMC

Demand Charge				
Summer Period				
Onpeak *	Add	\$0.00	+	\$0.24
Maximum	Add	\$0.52	+	\$0.02
Winter Period				
Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.02
Transition Period				
Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.02
Energy Charge				
Summer Period				
Onpeak	Add	0.111¢	+	0.130¢ + (1.03000 x A _m)
Offpeak				
First 200 hours ***	Add	0.111¢	+	0.071¢ + (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.008¢ + (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	0.008¢ + (1.03000 x A _m)
Winter Period				
Onpeak	Add	0.111¢	+	0.103¢ + (1.03000 x A _m)
Offpeak				
First 200 hours ***	Add	0.111¢	+	0.076¢ + (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.008¢ + (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	0.008¢ + (1.03000 x A _m)
Transition Period				
Onpeak	Add	0.111¢	+	0.078¢ + (1.03000 x A _m)
Offpeak				
First 200 hours ***	Add	0.111¢	+	0.078¢ + (1.03000 x A _m)
Next 200 hours	Add	0.111¢	+	0.008¢ + (1.03000 x A _m)
Additional kWh	Add	0.111¢	+	0.008¢ + (1.03000 x A _m)

Schedule DSMD

Demand Charge				
Summer Period				
Onpeak *	Add	\$0.00	+	\$0.24
Maximum	Add	\$0.52	+	\$0.02
Winter Period				
Onpeak *	Add	\$0.00	+	\$0.22
Maximum	Add	\$0.52	+	\$0.02

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

Transition Period					
Onpeak *	Add	\$0.00	+	\$0.22	
Maximum	Add	\$0.52	+	\$0.02	
Energy Charge					
Summer Period					
Onpeak	Add	0.111¢	+	0.125¢	+ (1.03000 x A_m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.066¢	+ (1.03000 x A_m)
Next 200 hours	Add	0.111¢	+	0.004¢	+ (1.03000 x A_m)
Additional kWh	Add	0.111¢	+	0.003¢	+ (1.03000 x A_m)
Winter Period					
Onpeak	Add	0.111¢	+	0.098¢	+ (1.03000 x A_m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.071¢	+ (1.03000 x A_m)
Next 200 hours	Add	0.111¢	+	0.004¢	+ (1.03000 x A_m)
Additional kWh	Add	0.111¢	+	0.003¢	+ (1.03000 x A_m)
Transition Period					
Onpeak	Add	0.111¢	+	0.073¢	+ (1.03000 x A_m)
Offpeak					
First 200 hours ***	Add	0.111¢	+	0.073¢	+ (1.03000 x A_m)
Next 200 hours	Add	0.111¢	+	0.004¢	+ (1.03000 x A_m)
Additional kWh	Add	0.111¢	+	0.003¢	+ (1.03000 x A_m)

The amounts applicable for A_m under column (3) in this Adjustment Addendum shall be determined each month by applying data from TVA's forecasts of TVA's actual operations, as well as actual data when it becomes available in accordance with the formula below. TVA will endeavor to publish the calculated amounts 20 days in advance of the month of application (but shall in no event publish these calculated amounts any later than 15 days in advance of the month of application), and such amounts will be applicable to bills rendered from meter readings taken for TVA monthly billing cycles beginning on and after the first day of each month beginning October 1, 2018.

*Applicable also to the third component of the demand charge

**[Reserved]

***Applicable also to minimum offpeak energy

$$A_{mj} = \frac{CF_{mj} + DAR_{mj}}{95\%}$$

A_{mj} = The monthly fuel cost adjustment (FCA) to be applied to the kilowatt-hour sales during the current monthly billing period and rounded to the nearest one-thousandth of a cent per kilowatt-hour.

m = a particular month

j = the particular customer group of LMS Customers, LGS Customers, or All Other Customers as those categories are defined in the Wholesale Power Rate Schedule.

CF_{mj} = The Core FCA adjustment for a particular month. $CF_{mj} = (FF_m / SF_m) + AD_{mj}$

FF = TVA's estimate of FA (as described below) for month m, based on the latest TVA Financial Forecast.

SF = TVA's estimate of SA (as described below) for month m, based on the latest TVA Financial Forecast.

AD = Seasonal adjustments applied separately for customer group j, based on historical resource cost allocation (RCA) data

Seasonal Adjustments (AD) are as follows:

Seasonal Period	LMS Customers	LGS Customers	All Other Customers
Summer	-0.096 ¢ per kWh	-0.062 ¢ per kWh	0.027 ¢ per kWh
Winter	-0.046 ¢ per kWh	-0.038 ¢ per kWh	0.014 ¢ per kWh
Transition	-0.044 ¢ per kWh	-0.022 ¢ per kWh	0.015 ¢ per kWh

DAR_{mj} = The adjustment that collects a portion of DA (as described below) in a month, rounded to the nearest one-thousandth of a cent.

$$DAR_{mj} = R \times DA_{mj} / FISF_{mj}$$

R = The collection ratio of 50%.

FISF = TVA's estimate of FISA (as described below) for month m and customer group j, based on the latest TVA Financial Forecast

DA = The deferred account that provides the true-up adjustment necessary to reconcile prior estimates to actual data, which shall be computed with the formulas below.

$$DA_{mj} = \overbrace{GLDA_{(m-2,j)}}^{\text{General Ledger DA Balance}} - \overbrace{DAR_{(m-1,j)} \times FISF_{(m-1,j)}}^{\text{Estimate of DAR collections prior months}}$$

The DA balances accrued for Large Customers prior to August 1, 2018, shall be liquidated based upon the average monthly sales for each of these classes for the period April 1, 2011, through July 31, 2017. The average percentage of sales by class used to allocate the DA balance are:

LMS Customers - 85%
LGS Customers - 11%,
All Other Customers - 4%

These allocations shall be made based on class specific adjustments to the deferred accounts of LMS Customers, LGS Customers, and All Other Customers for the October 2018 and November 2018 fuel cost adjustments. These adjustments are intended to properly allocate the costs based on how they were incurred prior to October 1, 2018.

FISA = Actual TVA energy sales subject to the FCA (in kWh) for month m and customer class j, as recorded in TVA's General Ledger with specific accounts 442000, 445000, 447000, 447100, and 448000 (or such similar or successor accounts as may be prescribed by FERC in the future).

GLDA = The general ledger deferred account balance that flows through to the balance sheet.

$$GLDA_{mj} = \overbrace{GLDA_{(m-1,j)}}^{\text{Accumulated General Ledger DA Balance}} + \overbrace{TU_{mj}}^{\text{Core FCA True-Up}} + \overbrace{GLD_{mj}}^{\text{DA Amortization}}$$

TU = The core true-up amount.

$$TU_{mj} = (FISA_{mj}/SA_{mj}) \times RCA_{mj} - GLR_{mj}$$

RCA = The RCA methodology allocates total fuel costs in proportion to the average hourly load of each customer group j, weighted by the dispatch cost of TVA's Top 100 MW of incremental cost in each hour.

$$RCA_{mj} = \left(\frac{\sum_i h_{ij} c_{ti}}{\sum_i \sum_j h_{ij} c_{ti}} \right) \times FA_m$$

i = the hourly interval of the billing month

h = the hourly energy of each customer group

C = Top Cost (dispatch cost for the top 100 MW)

FA = Actual total fuel and purchased power expenses (in cents) under the framework and accounts provided below (or such similar or successor accounts as may be prescribed by FERC in the future).

- (1) Fossil Fuel Expense - Account 501 - Direct cost of fuel burned in TVA coal plants, including transportation and fuel treatments. Costs to be excluded are lease payments for rail cars, maintenance on rail cars, sampling and fuel analysis, and fuel handling expenses in unloading fuel from shipping media and the handling of fuel up to the point where fuel enters the bunker or other boiler-house structure.
- (2) Reagents Expense - Account 502 - Cost of emission reagents such as limestone and ammonia that are directly related to the level of generation output.
- (3) Allowances Expense - Account 509 - Cost of emission allowance expense such as SO₂ and NO_x that are directly related to the level of generation output.
- (4) Nuclear Fuel Expense - Account 518 - Cost of nuclear fuel amortization expense dependent upon burn, including DOE spent fuel disposal charges.
- (5) Gas Turbine Fuel Expense - Account 547 - Direct cost of gas and oil burned in TVA plants, including transportation. Costs to be excluded are costs of gas storage facilities and sampling and fuel analysis that do not vary with changes in generation volume.
- (6) Purchased Power Expense - Account 555 - Energy cost of purchased power to serve native load demand or to displace higher cost generation. Costs to be excluded are fixed demand or capacity payments in tolling agreements and purchased power agreements that do not vary with volume and costs of purchased power linked to off-system sales transactions.
- (7) Audit Expenses - TVA's actual expenses incurred as the result of third party expenses for FCA audits.

SA = Actual total TVA energy sales (in kWh) for month m, as recorded in TVA's General Ledger with specific accounts 442000, 445000, 447000, 447100, and 448000 (or such similar or successor accounts as may be prescribed by FERC in the future), excluding any displacement sales reflected in account 447100.

GLD_{mj} = Actual TVA DAR revenue (DA amortization) for month m and customer group j, for firm-based energy sales, as recorded in TVA's General Ledger with specific accounts 442000, 445000, 447000, 447100, and 448000 (or such similar or successor accounts as may be prescribed by FERC in the future).

GLR_{mj} = Actual TVA Core FCA Revenue for month m and customer group j, for firm-based energy sales, as recorded in TVA's General Ledger with specific accounts 442000, 445000, 447000, 447100, and 448000 (or such similar or successor accounts as may be prescribed by FERC in the future).

TERMS AND CONDITIONS

1. Conditions of Delivery. The power delivered under the contract shall be 3-phase alternating current at a frequency of approximately 60 hertz and at the nominal voltage specified in the contract. Except for temporary periods of abnormal operating conditions, voltage variations shall not exceed 7 percent up or down from a normal voltage to be determined from operating experience.

Company shall exercise all reasonable precautions and install all equipment necessary to limit its Total Demand to the amount to which it is entitled under the contract. If the Total Demand for any interval exceeds the amount to which Company is so entitled, Company shall not be entitled to continue such excess takings, whether or not it is obligated to pay for them.

Maintenance by TVA at the point of delivery of voltage within the above stated limits and the frequency contracted for will constitute availability of power for purposes of the contract.

TVA shall not be obligated to install protective equipment, but may install such equipment as TVA deems necessary for the protection of its own property and operations. The electrical equipment installed by Company shall be capable of satisfactory coordination with TVA's protective equipment.

The power and energy taken under the contract shall not be used in such a manner as to cause unusual fluctuations or disturbances on TVA's system. Company shall provide, at its expense, suitable apparatus which will reasonably limit such fluctuations. In the event that unreasonable fluctuations or disturbances, including, without limitation, harmonic currents resulting in interference with communication systems or in harmonic resonance of now-existing facilities, are caused by Company's facilities, TVA shall immediately notify Company's designated representative of the circumstances, and TVA shall then have the right, after reasonable notice, to discontinue the delivery of power and energy under this contract until the condition causing such fluctuations or disturbances is corrected by Company. TVA shall give Company written notice of these circumstances in addition to the above-mentioned notice, but the requirement of providing such written notice shall not limit or delay TVA's right to discontinue service to Company. Despite such discontinuance of service, Company shall be obligated to pay TVA the amounts due for power and energy under the contract, including the minimum bills for such power.

2. Billing.

(a) Definitions. As used in this section 2,

(i) "day" shall mean a calendar day;

(ii) "business day" shall mean any day except Saturday, Sunday, or a weekday that is observed by TVA as a Federal holiday (Federal holidays currently include New Year's Day, Martin Luther King, Jr.'s Birthday, Presidents' Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day); and

(iii) "Average Short Term Interest Rate" shall mean (a) the average of the interest rates payable on TVA's short-term borrowings (having maturities of less than one year) made during the calendar month preceding the month of the date of a bill, or (b) in the event that TVA made no short-term borrowings during such preceding calendar month, the Average Short Term Interest Rate shall be deemed to be the average effective interest rate on 91-day United States Treasury bills (based on the average of the closing bid and asked prices) during such preceding calendar month, plus 1/8 of one percent.

(b) General provisions. TVA will bill Company for all charges applicable under the contract for each Billing Month as soon as practicable. Payment of such bill by Company shall become due 10 days after the date of bill. To any amount remaining unpaid 10 days after the due date, there shall be added a charge equal to the sum of (1) \$150 and (2) an amount calculated by applying the Average Short Term Interest Rate on a daily basis to the unpaid portion of the bill for each day of the period from and after the due date to and including the date of payment in full. TVA will prepare and send to Company appropriate invoices for such added charge, which shall be due and payable upon receipt. All payments shall be made to TVA at 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499, or at such other place as TVA may from time to time designate by notice to Company.